Student Research

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Farming: From The Ground Up

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Agriculture

Everyday starts with a farmer. From the first sip of coffee in the morning to the granola bar in the car on the way to work, each individual food item has been at the farm at some point in its life. There are nearly 2.1 million farms in the United States providing the necessities our country needs to eat each and every single day (Modern Farmer).

Every farmer starts somewhere. Whether they have inherited the land they farm, married into the business or start from scratch, it all starts at the beginning. With the first two options not taking into account, how does one start a farm and a successful business from nothing? We want to discuss the process that a beginning farmer must take in order to get his foot in the door and hopefully obtain a profitable career in the farming industry.

Industry Overview

"According to USDA survey data, the majority of farm operations in the United States utilize professional farm management services, spending over $1 billion annually" (Kuethe et al.,2015). The 2012 Census of Agriculture reported a near 5% decline in 2012 when compared to 2007. This decline in farm numbers is evidence that small farms are getting bought out by larger farms. Moreover, this points to the demand for services associated with farm management, which historically has been focused around the larger farms. This industry should see continued growth in terms of the percentage of total production value (Kuethe et al.,2015).

Figures 1 and 2 supporting the aforementioned trends and forecast discussed. Figure 1 illustrates the fluctuation and eventual decline of net farm income which inevitably forces small farms to sell out to larger operations who can absorb losses due to their ability to utilize economies of scales.

Figure 2 displays the percent of farm shares or production value in correspondence with acreage. This chart confirms that as the farm exceeds 500 acres, it exponentially increases its production value. With the numbers of small farms being absorbed, adding to the larger farms acreage, the larger farms contribute more to the overall market putting farm management in a positive situation. The larger farms are the operations that require more comprehensive farm management, so as these businesses continue to prosper, so will the farm management industry.

Times are changing, as "baby boomers" are beginning to move their way towards retirement, many shifts in the agricultural labor force are about to commence. According to the Center for Rural Affairs, the following statistics are changes that are likely to happen within the next ten years:

- Half of all current farmers are likely to retire within the next decade
- United States farmers over the age of 55 control more than half of the country's farmland
- The number of entry-level farmers has fallen by 30% since 1987
- New farmers make up only 10% of farmers and ranchers

This can be seen as a frightening time to enter the agricultural industry or it can be seen as an opportunity with plenty of new markets and niches to exploit if business plans are properly created. Our client, Mr. Steven Silva, is a Cal Poly San Luis Obispo graduate with a degree in Crop Science. He is a hard working and dedicated young man who has a strong desire to carry on his lifelong dream of becoming a successful farmer in the small town of Escalon, which is located in northern California.

Mr. Silva grew up working on his uncle's almond farm performing multiple jobs. From working harvests on hot summer days, operating the sprayer in the fields and crunching numbers in the office, he spent countless hours accruing a true taste for the farming life. He did anything he could do to help out his family and to gain a better understanding of what it takes to be successful.

Rent vs. Lease

A major decision for any up and coming farmer is whether to buy, rent, or lease property and equipment. These days, land is very rarely sold outright; therefore, our focus is on analyzing the differences between renting and leasing. When facing these two financing decisions, a farmer must understand that there are distinct differences in terms of renting and leasing. Although these are the two most common forms of financing property, that is not to say there are not hybrid agreements that incorporate aspects of both renting and leasing.

Cash-Rent is where the tenant usually pays a fixed dollar amount in rent (either on a per acre or whole farm basis). These types of leases may be modified depending on crop yield (i.e., increase in good years and decrease in bad years). In this scenario, the landlord is not as involved in crop production, thereby giving the tenant more autonomy. However, because the landlord is not technically engaged in active farming, he/she may not be able to participate in some federal programs. Furthermore, the income is not subject to self employment tax and is not considered to be earned income (Rincker).

Cropshare Lease is a situation where the landlord will share input costs (including but not limited to seed, fertilizer, and fuel) while the tenant provides all of the labor and remaining input costs. Once harvested, proceeds will be divided according to the agreement which normally ranges from “25/75” to “50/50.” In this scenario, the farmers both share the risk with one another while the landlord will typically satisfy the “actively engaged in farming” requirement of federal programs. The downside (or upside – depending on your view) for the tenant is that he/she loses autonomy because the landlord is involved in the decisions of the operation. Contrary to the cash rent lease, rental income will be subject to self employment taxes and may lower the landlord-farmer’s social security check if he/she is retired (Rincker).

Simply put, renting is a fixed payment to the landlord without having to disclose information while the landlord benefits from income not affected by self employment taxes. Moreover, cropshare leasing has the aspect of sharing the costs and decision making of farming with the landlord while the income the landlord gains is subject to self employment taxes. Additionally, leasing requires sharing information with the landlord and payment is directly related to harvest with a predetermined percentage going to the landlord. When speaking to Mr. Silva, he was a strong advocate for renting rather than leasing.

In his case, Mr. Silva outlines renting as the best option for several reasons; the main points being the maintaining of autonomy, increased profits during high-yield years, and it appeals to landlords due to the tax break rent income offers. Currently, Mr. Silva is renting his land with the belief that it will offer the most benefits for both parties. The landlord has stability in the form of a fixed payment instead of the fluctuation of lease payment percentages while the tenant has the opportunity for higher profits in years of high yield.

Finding land to rent or lease as a farmer can be a tedious process. Mr. Silva spoke of a friend of his that made many attempts to gain access to land he could farm in his local community as well as the different strategies the friend used to get his name out. At first he went door-to-door asking landowners for their permission to work on their farms, but this proved to be a slow and grinding process with little reward. He then distributed flyers around the area showcasing his potential as a farmer, but this also yielded zero returns. Finally, he went to a local real estate company and employed them to conduct research on properties in the area which held vast swaths of land, had no current farming operations and had the right kind of owner. That right kind of owner was a person who was either too old or too far gone from pre-existing farming activities to continue a successful operation. He used this data to find multiple matches and selected these prospects as his target market. With this refined list of choices, the farmer eventually obtained a contract with an elderly lady who needed a team to take over for her day to day farming activities. Sadly, after a few years of farming this woman's land, the owner passed away. However, due to his hard work and good relationship with the deceased, the farmer was rewarded with ownership of the entire farmland and began his own large scale farming business. This outcome is extraordinarily rare but is a good example of how farming can lead to major success. Therefore, although it will probably incur some kind of initial costs, utilizing local real estate agencies is a productive and surefire way to determine good prospects for custom farming.

Custom Farming

Starting your own farm is no small task. Because of this, custom farming has become a popular way for landowners to decrease the number of hours they work as well as a way for up-and-coming farmers to begin learning the tools of the trade without having to go through the process of purchasing, leasing, or renting a plot of land. Custom farming is when a land-owner contracts another person to farm their land in return for a fixed rate with or without the inclusion of a bonus percentage of the yield profit. According to Iowa State University, “The custom operator agrees to perform all the machine operations on the owner’s land in exchange for a set fee or rate. The landowner pays for all seed, chemicals, and other inputs, and keeps all of the crop and commodity payments. One obvious advantage to the custom operator is that little or no additional operating capital is needed. Fuel, lubrication, and repairs are usually the only added costs. In addition, custom farming offers a fixed return. Although the possibility of higher repair bills poses some risk, this is minor compared with the price and yield risks faced by a tenant. In a good year, of course, profits from custom farming will be smaller than under a conventional lease, but this is a common trade-off for reducing risk.”

According to Mr. Silva, custom farming is the best way to enter the farming industry at a young age if one has not accrued enough capital to invest in a complete farming operation. He spoke of a seventeen year old high schooler who had started his own custom farming business and began to work on local properties near his farm. Because he wanted to begin farming and did not have enough money to start a large operation, the kid purchased a used Toyota pick-up truck and a sprayer to begin spraying herbicides, insecticides and other chemicals for local farms. With the help of just one worker, the kid and his employee charged a fraction of the price their competition was charging and eventually became the most popular spraying business in the Escalon farming community, according to Mr. Silva. This proves that custom farming does not only allow a worker to begin farming at a low cost, but also allows one to network his/her business among other farming companies

Spraying has become a popular form of custom farming due to its low overhead costs and high demand. In order to begin spraying, one must obtain a QAL or “Qualified Applicators License.” This license allows a person to legally spray chemicals onto a farming property. Once this has been achieved by the applicator, then he/she may begin spraying. However, according to Mr. Silva, it is highly recommended to get sprayer’s insurance before one begins actual spraying operations. Mr. Silva talked of a sprayer who was contracted to spray a local farm’s fields with an herbicide in order to prevent weed growth. The chemical was picked up by strong gusts and blown 10 miles down wind to another farmer’s field. The herbicide landed on his crop and killed his entire harvest for that season. It is because of freak occurrences like these that it is highly suggested to obtain a decent insurance policy before spraying takes place for custom farmers.

Crop Selection

Deciding what to plant and when to plant it is an important task for farmers, especially new ones who need to turn an immediate profit in order to pay off their loans. A farmer is always looking for the highest profit margins but sometimes he/she must concede a few extra dollars for some form of security. If a farmer takes his/her product to market for sale, they are not always guaranteed to sell all of their supply. This is why it is always good if a farmer can close a deal before planting even begins, regardless if that crop is less profitable than other potential choices. An example of this, according to Mr. Silva, was when he planted pumpkins for a local buyer. Mr. Silva established a contract with a church that wanted to create a pumpkin patch for its children and others alike. The church had been purchasing pumpkins at high cost from multiple vendors in previous years and was looking to consolidate its orders. Mr. Silva offered to plant the total amount the church needed at a set price and was able to close a deal with the church before he even began planting the pumpkins. By offering a competitive price and a large enough supply, Mr. Silva minimized his risk through establishing a guaranteed buyer for his product. However, not all farmers are able to find a guaranteed buyer for their products before planting. Because of this, farmers must use cost saving strategies along with a general knowledge of what the market is doing for their specific crop.

In addition to growing pumpkins, Mr. Silva has grown squash, broccoli, and oats. Squash and broccoli were selected because of their high value in the current market and because Mr. Silva established a buyer for each commodity before they had even been planted. It is these high-priced, low-risk commodities that create an ideal situation for a farmer due to their revenue maximizing and cost mitigating nature. In addition to this, Steven's decision to plant oats was based on slightly different means. Oats provide a fantastic buffer between crop rotations due to their ability to nurture the soil and resist large manifestations of intrusive weeds and pests. Furthermore, Mr. Silva disclaimed to us that the only other oat grower in the area was having a hard time producing a healthy crop. Mr. Silva wanted to capitalize on this and grow a favorable oat crop that would hopefully take the place of his competitor's in the regional market.

Labor Contracting vs. In-House Labor

When starting your own farm, after land is obtained and you have the necessary means to harvest a specific crop, a necessary decision that needs to be made is where your labor source will be coming from. One of the biggest questions one must face is whether to use a labor contractor or in-house labor practices during planting and harvesting times. There are pros and cons for both methods.

According to the Migrant and Seasonal Farmworker Protection Act, labor contracting is the recruiting, soliciting, hiring and employing of any migrant seasonal worker. In other words, when the times are busy (usually during planting and harvesting periods), one may contract labor in order to fulfill a particular job for a specified period of time. These workers are normally paid on a project basis which means there will be a ceiling on how much each worker will make.This is, however, not dependent on how many hours it takes to complete each job or task (Small Business).

According to the University of California, California Agriculture, “The role of FLCs in California is expanding, due in part to an increase in farm labor regulations. Growers say they find it easier and more cost-effective to use FLCs for the recruitment and supervision of agricultural workers.”

Nearly one third of farmworkers in California have been employed through an FLC at least once during the previous fiscal year, according to California state tax records. Since the 1980’s, seasonal worker employment has increased 90% which exemplifies why the FLC’s are the fastest growing employer in California agriculture (University of California, California Agriculture).

Agriculture used to be the main and primary source of work for migrants coming into the United States in the 1970’s and 80’s. However, according to Dr. Eivis Qenani, a professor at Cal Poly San Luis Obispo, times are changing. Migrant workers are now looking for opportunities in restaurants, maid services, and alternative methods of work other than the backbreaking traditional agriculture-harvesting job. With that being said, it is becoming more difficult and more expensive to find workers on your own. It is becoming more time and cost-effective to contract labor out, not only because it minimizes the firm’s risk regarding violation of labor laws, but also puts the job of training, bookkeeping and supervision in the hands of the contractor (University of California, California Agriculture).

According to our client, Mr. Silva, “Farm labor contracts minimize liability from the firm itself, and creates less risk for the business if anything were to go substantially wrong.” Unfortunately, Mr. Silva was faced with an incident such as this in the summer months of 2012. In June of that year, there was an incident that transformed the way Mr. Silva runs his business operations. At that time in his career, Mr. Silva and De Palma Farms were using what is called “in-house” labor practices where the crew is employed by the management team and all risk lies upon the farm.

On a normal evening on a late summer afternoon, there was a company tractor driving alongside the service road of one of the almond orchards. At that exact point in time, a distracted driver on the same service road hit the De Palma Farms employee operating the slow moving tractor. The subsequent crash resulted in the tractor operator receiving severe head trauma and 911 was called immediately. Emergency vehicles rushed to the scene in order to quickly transport the tractor driver to the nearest hospital due to his critical condition. Although healthy and well today, the man was in a coma for three months following the accident.

When dealing with such a severe accident, lawyers began to dig up all kinds of information and stories in order to find an individual or entity to blame. After a very time consuming investigation, the responsibility was finally put on Mr. Silva and his family because the yellow caution triangle that is on the back of every farm vehicle was removed by the driver. Mr. Silva mentioned that this is a common occurrence because the safety caution triangle is often a disturbance to the driver because of its interference with the their personal space. Since the driver had taken this yellow caution triangle off of his vehicle, the court had put the blame on the farm management team for not regulating the proper laws and regulations. All risk and liability was placed in Mr. Silva’s lap and even though he decided to not disclose how much it cost the firm in total, he did state that neither him nor his colleagues on neighboring farms will be using “in-house” labor techniques again. This mistake cost the firm a significant amount of money, and three years later are still paying bills for the incident. For this reason, with the increase in FLC’s (Farm Labor Contractors) in California Agriculture, Mr. Silva has decided to go against “in house” labor to minimize risk and liability and use FLC’s for the main source of labor.

Efficiency of Resources

Diversification is a key component to any long term crop and successful farming operation. The common saying, “don’t put all your eggs in one basket” is a key piece of advice every young and emerging farmer should live by. Moreover, there are always mishaps in the farming endeavor, whether that be bad weather, poor market prices, or the dormant years before your next harvest if you are planting a crop such as a stone fruit. There needs to be an alternative method of income in order to stay efficient, and keep the revenue stream constant.

For example, Mr. Silva does a great job of utilizing the entirety of his resources. Upon visiting his farm, he showed us that one way he increases revenue is to plant a fig tree at the end of every row where a larger tree may not have fit. Figs are a specialty crop with a good return on investment that do not require much labor or resources to grow. By taking advantage of this otherwise useless space, he is able to incur more earnings than he would have if he had left the space open. If a farmer is forced to tear out trees due to disease, storms, or pests, selling the wood from those tree on the side is an excellent alternative source of revenue to an otherwise sunk cost. According to Mr. Silva, it is this kind of utilization of resources that a young farmer needs in order to bolster higher profits and establish a successful, longstanding business.

Costs

It is nearly impossible to start any successful farming operation from scratch. Connections, capital, knowledge, and clientele are all parts of a very intricate equation in becoming a successful farmer. With that being said, there is not a direct recipe on how much it will cost to begin your own farming operation. All aspects of your farm are dependent on other variables such as location, crop, acreage, previously obtained machinery, labor, etc. In addition, each commodity will have a different return on investment, different marketing channels and different hurdles and obstacles that need to be addressed when beginning a new farm.

According to Mr. Silva, a new farmer must have alternative forms of income in order to establish an operation that might grow and allow one to become a full time farmer in the future. Loans must be paid off, capital for machinery must be fronted and any costs in between must somehow be paid off. Mr. Silva, even though nearly starting his own firm from scratch, still had a significant amount of help from his uncle at De Palma Farms. His uncle charged Mr. Silva an extremely low price for land, let him borrow machinery during harvesting and planting times as well as allowing Mr. Silva to use the existing current labor contracts that were used during almond harvest. Even with all the help he received from De Palma Farms, Mr. Silva still had to obtain a $200,000 loan from the Farm Credit Bureau for the first two years and will ideally have it paid in full by 2020. He mentioned that this initial loan is a significant amount of money, but this amount can barely get your feet on the ground in the agriculture industry. According to Mr. Silva, the agriculture industry is a tricky one to get started in. He says that any beginning farmer must have connections, existing capital, big dreams and a strong work ethic in order to become a successful farmer in California.

Figures

Figure 1.

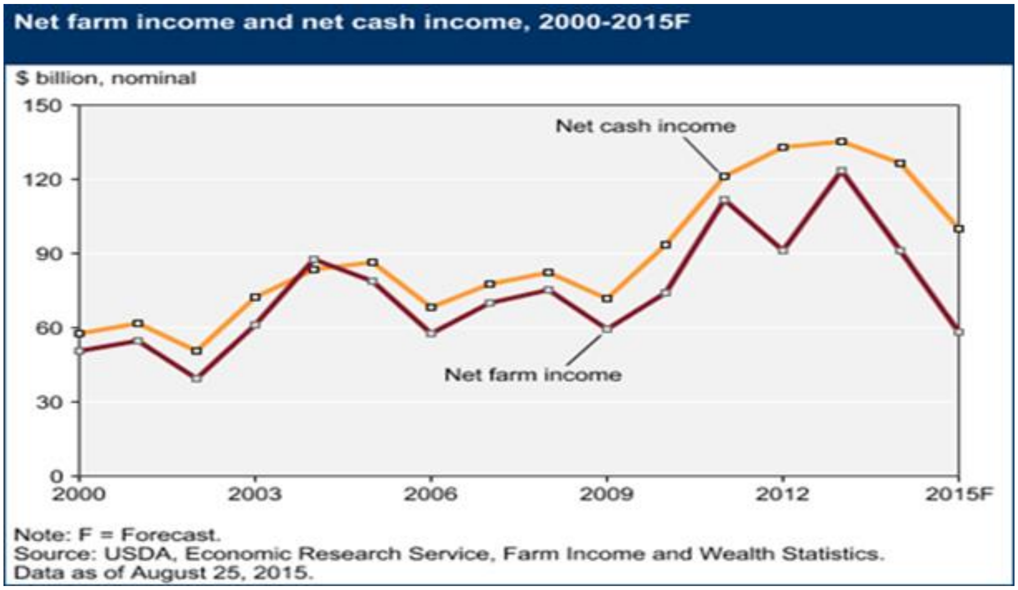


Figure 2.

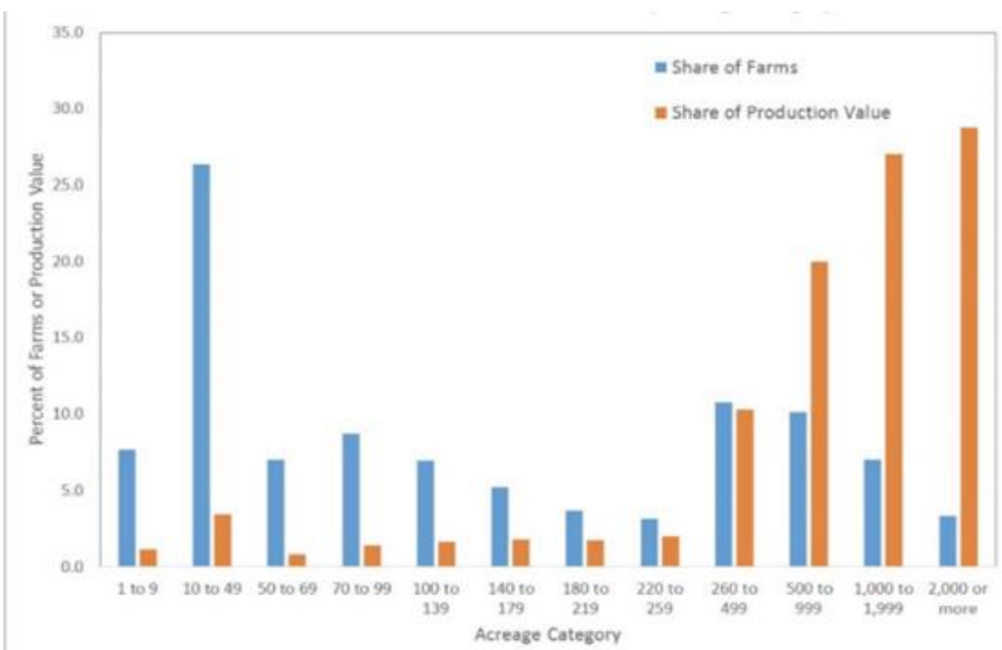
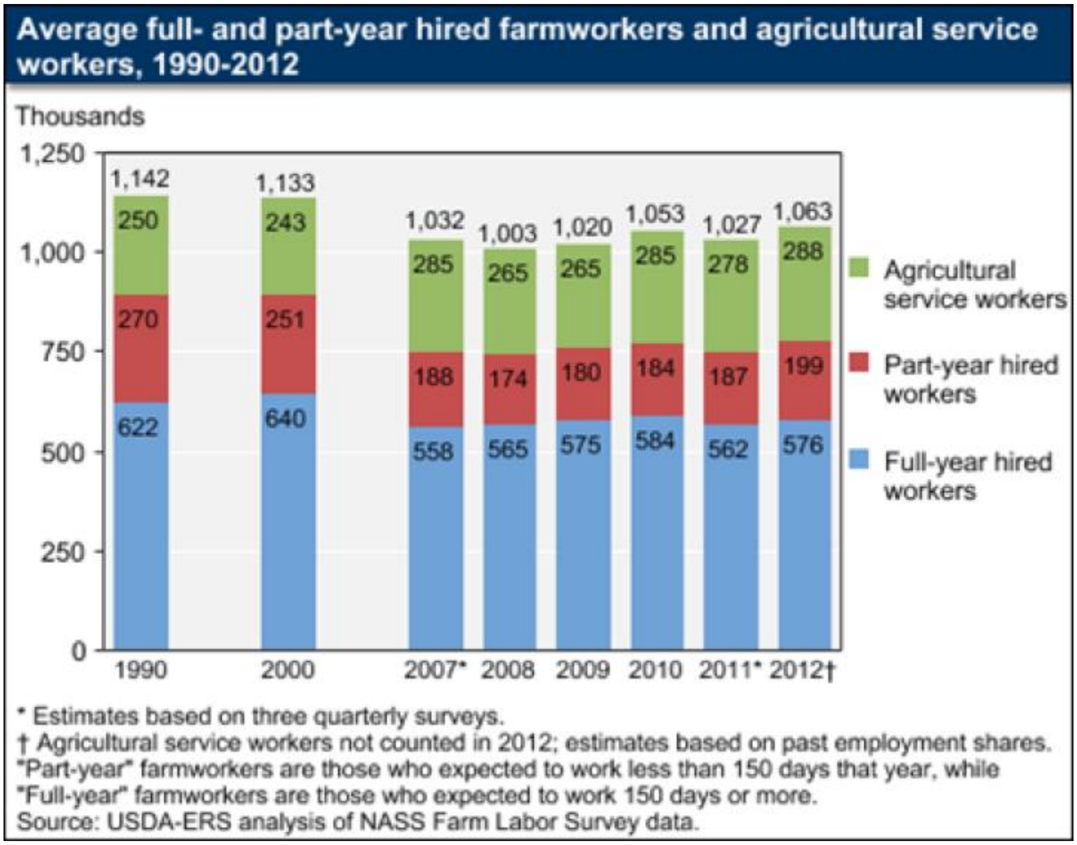


Figure 3.



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